

ARC
INSTRUCTIONS

The Mk2 Action Replay is actually two cartridges in one unit, featuring both a unique back up system and a high speed loader for disc programs.

USING THE CARTRIDGE.

Before starting please ensure that you have a disk or tape ready with enough room to receive the backup.

MAKING A BACKUP.

1 Flick the small switch on the back of the cartridge to the DOWN position.

2 Switch on the computer.

3 Press the red button on the cartridge and the screen will blank.

4 Press F1 and after a short delay the computer will clear and return READY.

Now you can load your program as normal from tape or disc. When the program has loaded, let it progress to the point where you would normally like it to restart, then press the red button to stop the action. You now have several choices:

press,

D to save the program to disc The program will reload at turbo speed.

S to save to disc to reload at normal speed. (See section on fast loader cartridge.)

T to save to tape to reload at turbo speed. ('X' key can be used. See later section)

C to enter the Code inspector. (see section)

F7. to continue program.

The save process is completely automatic. When saving to disc you will be required to name the backup.

Reloading Action Replay backups are as normal ie. From tape SHIFT/RUN STOP.

From disc LOAD "NAME",8,1

All backups will run independantly of the cartridge

HIGH SPEED LOADER.

By flicking the small switch to the UP position the Action Replay high speed loader comes into action. This mode is used to speed up the 1541 drive by up to 5 times when loading most software. In addition any backups made by Action replay at normal speed (using "S") will be loaded faster in this mode. It should be noted that quite a lot of game discs already have a fast loading system of their own so the results may vary.

Reset Button.

In the loader mode the red button becomes a very useful reset button.

Disc users.

Discs must be formatted ready for use before they can be saved to. Action replay will compact the program down to about 220 blocks on average so 3 programs should fit on each disk.

NEW FEATURES.

This new Action Replay (Ver 2.3) now has the ability to backup many multistage programs from tape to disc. See the section for instructions before proceeding.

In addition you now have the facility to 'Snapshot' a hires screen and save it to disk for use within many graphic packages including 'Blazing Paddles' which is now available from Datel. (£24.99 complete with lightpen or £14.99 alone)



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CODE INSPECTOR.

This feature is selected by pressing "C" after freezing the program. The screen will turn black and the current status of the following will be displayed:

- | | |
|------------------------------|------|
| 1) Program Counter | (PC) |
| 2) IRQ Vector | |
| 3) NMI Vector | |
| 4) Processor Status Register | (SR) |
| 5) Accumulator | (AC) |
| 6) X Register | (XR) |
| 7) Y Register | (YR) |
| 8) Stack Pointer | (SP) |

Also displayed will be the contents of the following:

- 9) 6510 on-chip I/O registers (0&1)
- 10) Vic II Chip IRQ Mask & Raster compare latch value
- 11) CIA ICR mask values and timer latch values

There will be four options displayed underneath this information:

The first (L) will allow you to load and execute a machine language file from disc. This could be used to load in a ML monitor or perhaps a custom program. It will ask for the name of the file and for the jump address.

The second option (J) will be to jump to any address point in memory. This could be used to test for proper entry points for program start-up. Enter the desired address when prompted.

Option three (D) will allow you to display memory in hex. Enter the start and end addresses when prompted.

The fourth option (B) will return you to BASIC.

HINTS AND TIPS.

It is usual to simply stop the action and make a save to tape or disc without problems. Here are a few hints and tips for the more difficult back-ups.

- 1) It is good practice when saving to disc to switch the drive off then on again just before pressing "D" or "S".
- 2) Try saving the game from different points. "Game over" can be a good point for many reasons (see below).
- 3) Some back-ups when reloaded may have either a corrupted screen or sound. Letting the program run to the end and then restart will reset some of the registers and clear up this problem. This is why saving from "Game Over" is useful.
- 4) Some of the latest tape games will check for a disc drive connected and either not load or not run properly if the case. It follows that if you make a back-up of these games to disc you may encounter problems on reload. Sometimes switching the drive off after loading but before starting the game may work. One such game is "V" from Ocean.

In general trial and error whilst bearing in mind the above points is the answer to successful back-ups. With some programs there may be only a few points at which a back-up can be made and hence a lot of effort will be needed in these cases. To date we know of only a couple of programs that seem "Action Replay" proof. Having said this, we know of no other system of this type (contrary to any advertisement claims) that can copy them either. As you will appreciate, "Action Replay mark II" offers the best value for money of any back-up cartridge available. We are constantly developing and updating this product and upgrades will be made available at a nominal fee from time to time.

MULTISTAGE PROGRAMS.

Action Replay Mk II has the facility to transfer multistage novaload tape programs to disk. These are those programs which load extra data as the program progresses. Examples are Summer Games II, Winter Games, Hardball, Golf Construction Set, Karateka, PSI-5, Law Of The West, Racing Destruction Set, Silent Service, Solo Flight II, Koronis Rift, The Eidolon, Beach Head II and others.

Transfer is a two stage process:

1. Transfer the main program. The procedure is the same as for a normal program with one exception. You should load the program up to the main title screen, press the cartridge button to freeze the program, and then press key "M" to transfer the program (think "M" for MULTISTAGE). ('K' will also save multiload at standard speed)

2. Transfer the Nova files. These extra files occur either immediately after the main program or on the other side of the tape. Here is how to copy the Nova files:

- a) Switch the computer off and on.
- b) Press the cartridge button and key "F" (think "F" for FILES).
- c) You now have the option to transfer NOVALOAD or SLOWLOAD files (files recorded at standard speed). Use slowload option for Kennedy Approach.
- d) Press play on tape. The files will load in and automatically transfer to disk with their correct filenames. If the files spread over two tape sides, just turn over when the tape runs out.

Points to note.

1. Certain files are repeated to avoid excessive tape winding. It is not necessary to transfer these files to disk, and the program will go on to the next tape section with the message "file exists".

2. Disk space. Some of these programs are very long and will require more than one disk. It is wise to start transfer with a freshly formatted disk. You should zero the tape counter after each section has loaded from tape. If a "disk full" message occurs you can rewind the tape and retransfer the section after inserting a fresh disk.

3. Load errors. Three situations can result in a "load error" return. a) The program sections are not recorded with the novaload system. In such cases transfer is not possible. b) The load started in the middle of a nova section. Wind the tape back a little and rerun the program. The best way to find the start of a section is to play the tape in a standard audio cassette recorder and listen for the blank section between files. c) The section did not load correctly. Rewind the tape to zero and try again.

Loading from disk.

We recommend that you use the Action Replay cartridge loader. Certain other quickload utilities (eg Quickdisk) use areas of memory which may cause failure. In some cases you may have to press play on your datasette before program sections will load from disk. In cases where the program spreads over more than one disk, the required file may not be found and the disk light will flash. If this occurs insert the other disk and press the space bar to restart the load sequence.

Special instructions.

Summer Games II requires three disk sides.

PSI-5. After selecting your crew, press play on tape and leave it down until the whole program has loaded.

Hardball. All the Nova files are identical. Only one section need be transferred to disk.

Eidolon. When loading the main program, zero the tape counter when the main title screen appears. Transfer nova sections from that point.

Solo Flight II. One file may have to be renamed. OPEN 15,8,15,"R0:MASSACHUSETTS.M=0:MASSACHUSETTS":CLOSE 15

There are certain variations with this type of program which will result in failure. All named examples and others will transfer correctly if the above procedure is followed. Some other programs and non nova systems require certain modifications which we plan to handle in a later software release.

IMPORTANT. Disk load will only be linked in correctly if you transfer the main section using the "M" key, NOT S or D. Transfer should be made from the original tape version of the program.



PICTURE SAVE FACILITY.

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Action Replay MK II will save any multicolour high resolution screen to disk. Loading screens, etc, may be saved for use with graphics software. Press the cartridge button when the required screen is displayed (eg a tape loading screen). Switch the disk drive off and on. Insert your output disk. Then press one of the following keys:

Key "B". Saves screen in BLAZING PADDLES format. This is a graphics/lightpen package soon to be available. The filename will have a prefix "PI."

Key "H". Saves screen in Koala pad format, for loading into Koala software. The filename will have a reversed heart prefix. Note that this name should be renamed to pad out the filename to 16 characters with spaces. The reversed heart symbol may be obtained by pressing the CBM key and key "I" together in quote mode. Alternatively the name may be specified with a "@" character eg enter NAME@ when prompted by Koala demo program (not supplied).

If the graphics mode is not hires multicouleur an error message will occur.
Slide show and other software will soon be available to take advantage of the picture save facility.

Other points.

Pressing 'X' to save to tape. The program that you are trying to backup may disable the 'T' key (ICUPS is one) so we have made 'X' as an alternative. The effect is exactly the same.

A few games are trying to detect that a backup cartridge is present before loading. This is done by checking to see if the RAM has been configured in the way that backup cartridges do. Action replay configures the RAM when you press the red button then F1 key at the start of the process. If you do come across a program that will not load with Action replay present then try again without going through the Ram initialization ie. simply switch the computer on and load your game. We only know of one game at present using this check (Knight Games) but there will probably be more because although it is ineffective with Action Replay it plays havoc with our competitors products who automatically initialize ram on power up.



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